

Algebra 2  
 Quadratic Functions WS  
 E.P.

Name \_\_\_\_\_

For each quadratic function, indicate whether the parabola opens up or down; and find the equation of the axis of symmetry, and the coordinates of the vertex. Do not graph the function.

1) $y = 8x^2$	2) $y = -6x^2$
3) $y = \frac{3}{8}x^2$	4) $y = -\frac{1}{5}x^2$
5) $y = -4x^2$	6) $y = \frac{1}{3}x^2$
7) $y = 6x^2$	8) $y = -5x^2$
9) $y = -\frac{1}{2}x^2 + 4$	10) $y = -\frac{2}{3}x^2 + 2$
11) $y = x^2 - 3$	12) $y = x^2 - 2$
13) $y = -4 - 4x^2$	14) $y = -4x^2 - 1$
15) $y = 5x^2 - \frac{1}{2}$	16) $y = 5 + \frac{1}{2}x^2$
17) $y = \frac{1}{2}x^2 - 5$	18) $y = \frac{1}{2} - 5x^2$
19) $y = (x + 5)^2$	20) $y = (x - 3)^2$